

APPLICANTS: Comb *et al.*
U.S.S.N.: 09/535,364

contain said motif.

21. (Amended) The method of claim 19, wherein said changes in modified protein levels or post-translational modifications result from drug treatment.

C₂
22. (Amended) The method of claim 20 or 21, wherein said motif is selected from the group consisting of MAPK consensus substrate motifs, 14-3-3 binding motifs, CDK consensus substrate motifs, PKA consensus substrate motifs, Akt consensus substrate motifs and acetylated lysine.

A marked-up version of these claims indicating the amendments made is attached. 37
C.F.R. §1.121(c)(1)(ii).

Please add new claims 27-38, as follows:

27. (New) A motif-specific, context-independent antibody that binds a modified motif conserved among cell signaling proteins within a genome, said motif comprising at least one phosphorylated, acetylated, or methylated amino acid, wherein said antibody recognizes a plurality of peptides or proteins within said genome that contain said modified motif.

C₃
28. (New) A motif-specific, context-independent antibody that binds a kinase consensus substrate motif or a protein-protein binding motif comprising at least one phosphorylated amino acid, said antibody recognizing a plurality of peptides or proteins within a genome that contain said motif.

29. (New) The antibody of claim 28, wherein said kinase consensus substrate motif is selected from the group consisting of MAPK consensus substrate motifs, CDK consensus substrate motifs, PKA consensus substrate motifs, Akt consensus substrate motifs, and bulky ring-directed kinase consensus substrate motifs, and wherein said protein-protein binding motif is a 14-3-3 binding motif.

APPLICANTS: Comb et al.
U.S.S.N.: 09/535,364

30. (New) The antibody of claim 28, wherein said antibody is monoclonal.
31. (New) The antibody of claim 28, wherein said antibody is polyclonal.
32. (New) The antibody of claim 28, wherein said antibody is produced by a method comprising the steps of:
- (a) constructing a combinatorial peptide library comprising (i) a fixed motif, wherein said fixed motif comprises said kinase consensus substrate motif or said protein-protein binding motif, and (ii) a plurality of degenerate amino acids surrounding said motif;
 - (b) immunizing a host with said peptide library; and
 - (c) isolating antisera from said host, and purifying said motif-specific, context-independent antibody from said antisera, said antibody recognizing a plurality of peptides or a proteins with a genome that contain said motif.
33. (New) The antibody of claim 32, wherein said method further comprises the step of utilizing spleen cells from said host of step (b) to generate at least one monoclonal, motif-specific, context-independent antibody.
34. (New) A motif-specific, context-independent monoclonal antibody that binds phosphorylated CDK consensus substrate motif, said antibody recognizing a plurality of peptides or proteins within a genome that contain said motif.
35. (New) A hybridoma clone producing the monoclonal antibody of claim 34.
36. (New) The hybridoma clone of claim 35, wherein said clone is ATCC Accession No. HB-12563.